

**S.D. WARREN COMPANY  
CUMBERLAND COUNTY  
WESTBROOK, MAINE  
A-29-70-D-A**

) **DEPARTMENT**  
) **FINDINGS OF FACT AND ORDER**  
) **CERTIFICATION OF VOC CREDITS**  
) **PART 70 AIR EMISSION LICENSE**  
) **AMENDMENT #3**

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

## **I. INTRODUCTION**

S.D. Warren Company (SDW) of Westbrook, Maine has submitted an application for certification of Volatile Organic Compound (VOC) offset credits under Chapter 113 of the Department Regulations. The VOC offset credits have been generated by the permanent shutdown of the pulp mill and related equipment in June of 1999.

## **II. NATURE OF REQUEST**

SDW permanently shut down its pulp mill in June of 1999 and as a result, several licensed emission sources ceased operation. By the mill's shut down of the pulp making facilities, SDW has permanently shutdown the following units:

- No. 3 Recovery Boiler
- Smelt Tank
- No. 19 Power Boiler
- Lime Kiln
- Bleach Plant
- Slaker/Causticizers
- Weak Black Liquor Storage Tanks (six)
- Strong Black Liquor Storage Tank
- Unbleached Pulp Storage Tank
- Green Liquor Storage Tanks

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A Certification of NO<sub>x</sub> Offset Credits (A-29-71-AE-M) issued to SDW in 1999 prohibited the operation of the No. 3 Recovery Boiler, the Smelt Tank, the No. 19 Power Boiler, and the Lime Kiln. This amendment serves to prohibit operation of the other units listed above. In addition, this document is Department certification under Chapter 113 of the VOC offset credits that were generated by the shutdown of the units listed above. The following addresses the requirements for credit generation under Section 4 of Chapter 113.

*Department Regulation Chapter 113 Section 4(A)*

The credits sought by SDW have been based on the actual VOC emissions from the units in question during the 24-month period from January 1, 1997 through December 31, 1998 as follows:

Emission Unit	1997 VOC Emissions (tons)	1998 VOC Emissions (tons)	Average Annual VOC Emissions (tons)	Average Annual # Days Operation	Average Daily Emission Rate (lbs.)
No. 3 Recovery Boiler	9.8	9.6	9.7	353.3	55
Smelt Tank	1.1	1.1	1.1	353.3	6
No. 19 Power Boiler	8.6	7.1	7.9	348.5	45
Lime Kiln	2.9	3.3	3.1	345.2	18
Bleach Plant	24.7	22.3	23.5	365	129
Slaker/Causticizers	1.2	1.4	1.3	345.2	8
Weak BL Storage	18.7	18.7	18.7	365	102
Strong BL Storage	0.6	0.6	0.6	365	3
UB Pulp Storage	0.7	0.7	0.7	365	4
Green Liquor Storage	0.01	0.01	0.01	345.2	Negligible
<b>Totals (prior to CAM adjustment)</b>	<b>68</b>	<b>65</b>	<b>67</b>	<b>--</b>	<b>370</b>
<b>Total (including 0.78 CAM adjustment)</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>289</b>

Detailed information regarding the method of quantifying the VOC emissions and demonstrating compliance with Chapter 113 is contained in SDW's Application packet dated February 7, 2005 and their license file.

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*Department Regulation Chapter 113 Section 4(B)*

VOC emissions from the units in question were in compliance with all federal and state VOC emission requirements in 1997 and 1998. Therefore, all VOC emission reductions from these units are creditable as offset credits.

*Department Regulation Chapter 113 Section 4(C) and (F)*

The shutdown of the No. 3 Recovery Boiler, Smelt Tank, No. 19 Power Boiler, Lime Kiln, Bleach Plant, Slaker/Causticizers, Weak Black Liquor Storage Tanks, Strong Black Liquor Storage Tank, Unbleached Pulp Storage Tank, and Green Liquor Storage Tanks were not required by any federally enforceable license condition or other requirement of the Clean Air Act or other applicable federal or state law. Further, there are no other pending or reasonably foreseeable VOC reduction requirements that would apply to these units. These VOC emission reductions are in surplus to all current and reasonably foreseeable VOC control requirements. Given these facts, all of the VOC reductions resulting from the shutdown of SDW's pulp mill are eligible for certification as VOC offset credits.

*Department Regulation Chapter 113 Section 4(G)*

Pursuant to Chapter 113, Section 4(G) and Chapter 115 Section 5(A)(4), SDW has requested that the shutdown of the above mentioned units be made federally enforceable. This Order revises the facility's Initial Part 70 License, A-29-70-A-I, to prohibit operation of those units listed herein and not previously prohibited from operation in accordance with the Certification of NOx Credits Order such that the resulting VOC reduction credits are deemed federally enforceable.

*Department Regulation Chapter 113 Section 4(H)*

All units in question were previously licensed and actually operating since before 1990.

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*Department Regulation Chapter 113 Section 4(I)*

The shutdown of the subject units has not shifted the steam demand to other existing units at the mill. Due to the shutdown of the pulp mill and paper machine, the overall steam demand of the mill has been reduced by an amount greater than the steam provided by the No. 3 Recovery Boiler and No. 19 Power Boiler. Also, it has been demonstrated to the satisfaction of the Department that the shutdown of the pulp mill did not result in similar sources in the state increasing production thereby offsetting SDW's emission decreases. Therefore, shutdown of these units will not result in an increase in VOC emissions from any of the remaining units at the mill or from any other sources within the state.

*Department Regulation Chapter 113 Section 4(J)*

Due to the fact that the subject units were production equipment that substantially operated year-round, there was no significant seasonal variation in VOC emissions from these units. Further, because No. 19 Power Boiler was used to produce process steam, there was no significant seasonal variation in the VOC emissions from this boiler. These facts are further demonstrated in SDW's application dated February 7, 2005.

**The following addresses the Department's determination regarding quantification of offset credits in accordance with Section 5 of Chapter 113.**

*Department Regulation Chapter 113 Section 5(A)*

As required, VOC offset credits have been quantified in an average hourly or daily emission rate expressed in pounds.

*Department Regulation Chapter 113 Section 5(B)*

Quantification of offset credits have followed the two step process described below in Sections 5(C) & 5(D) of Chapter 113, including quantification of the base credit and adjustment of the base credit for compliance assurance.

*Department Regulation Chapter 113 Section 5(C)*

To the extent possible replicable methods have been used to establish the baseline which reflects the lower of actual or allowable emissions. The best available data has been used to establish baseline emissions including the following emissions estimating methods: emission factor based permit limits, emission factors utilized in the I-STEPS program for reporting emissions under Chapter 137, emission factors developed by NCASI based on testing similar sources, and emission factors based on actual stack test results.

*Department Regulation Chapter 113 Section 5(D)*

Adjustments have been made to the calculated baseline emission rates by applying a compliance assurance multiplier (CAM) reflecting the emission estimating method. A CAM of 0.78 was determined to be reasonable to use by the Department considering all the different types of emission factors and estimates provided. The table below provides information that was used by the Department to determine the CAM.

Emission Unit	Emission Rate (lbs/day)	Percentage of Total Emissions	Basis for Emission Factor	CAM Possible Range	Selected CAM*
No. 3 RB (#2 Oil)	0.4	0.1%	AP-42/I-STEPS	0.5 to 0.8	0.8
No. 3 RB (BLS)	54.6	14.8%	Stack Tests (2)	0.85	0.85
Smelt Tank	6	1.6%	NCASI Tests (26)	0.5 to 0.8	0.8
No. 19 Boiler	4.8	1.3%	License Limit	0.5 to 0.8	0.7
No. 19 Boiler	40.5	10.9%	AP-42	0.5 to 0.8	0.75
Lime Kiln	18	4.9%	Stack Tests (2)	0.85	0.85
Bleach Plant (BP)	41.8	11.3%	NCASI Tests (51)	0.5 to 0.8	0.8
Bleach Plant (UBP)	87.2	23.5%	NCASI Tests (?)	0.5 to 0.8	0.75
Slaker/Causticizers	8	2.2%	NCASI Tests (3)	0.5 to 0.8	0.75
Weak BL Storage	102	27.5%	NCASI Tests (3)	0.5 to 0.8	0.75
Strong BL Storage	3	0.8%	NCASI Tests (5)	0.5 to 0.8	0.75
UBP Storage	4	1.1%	NCASI Tests (4)	0.5 to 0.8	0.75
Green Liquor Tanks	negligible	0.0%	NCASI Tests (1)	0.5 to 0.8	0.7
Totals	370	100%	--	--	0.78*

\* Note: The Department used its best engineering judgment in determining the CAM value within the allowable range specified by Department regulations Chapter 113.

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**ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants this Certification of VOC Credits and Part 70 Air Emission License A-29-70-D-A (Amendment #3) subject to the conditions found in the Initial Part 70 License A-29-70-A-I, subsequent amendments, and to the following condition:

- (1) SDW is granted certification of 289 lbs/day (53 tons/year) of VOC Offset Credits under Chapter 113 of the Department's regulations. The credits generated are a direct result of SDW's shutdown of the pulp mill at the Westbrook facility. SDW shall not operate the No. 3 Recovery Boiler, Smelt Tank, No. 19 Power Boiler, Lime Kiln, Bleach Plant, Slaker/Causticizers, Weak Black Liquor Storage Tanks, Strong Black Liquor Storage Tank, Unbleached Pulp Storage Tank, and Green Liquor Storage Tanks.

DONE AND DATED IN AUGUSTA, MAINE THIS            DAY OF            2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 10, 2006

Date of application acceptance: May 24, 2006

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Eric Kennedy, Bureau of Air Quality